

IN RESPONSE TO THE OFFICE ACTION

Claim Rejections under 35 U.S.C. § 102(b)

The Examiner has rejected claims 1, 2, 4 and 5 under 35 U.S.C. § 102(b) as being anticipated by Cochran et al., U.S. Patent No. 3,180,419 ("Cochran").

Claim 1 of the instant application is directed toward a liner hanger. Cochran is directed toward a packer. The Examiner states in the office action that "Cochran et al. discloses in figures 1-4 a liner hanger," however, as is described in Cochran at column 1, lines 53-61, figures 1-4 actually show a packer, and not a liner hanger. Therefore, Applicant submits that it is impossible for Cochran to anticipate the claims of the present invention, as Cochran is directed to a packer, while the claims of the present invention are directed to a liner hanger.

However, given that Cochran is directed to a totally different technology than the claims of the present invention, even if they were the same Cochran would not anticipate any claim of the present invention. Referring to claim 1 of the present invention, it is required that the claimed liner hanger comprise a slot on an outer wall of the casing mandrel; a groove, at least partially annular, on an inside surface of the cone assembly oriented with the slot; [and] at least one wire situated in the slot and the groove. This combination is not present in Cochran. First, as shown in Figs. 3-4 of the instant application, the slot 26 on the outer wall of the casing mandrel and the groove 52 on the inside surface of the cone assembly are aligned, with a series of wires 60 disposed therein. As disclosed in the instant application at page 6, lines 17-23, this arrangement provides a mechanical joining of the cone assembly and the casing mandrel in place of having the cones welded on to the mandrel or attached with a threaded connection. Cochran discloses completely different elements disclosed in a completely different arrangement. First, the snap ring 25 is not a wire, as snap ring 25 is allowed to travel within counterbore 23, which, as shown in figures 1 and 2 in Cochran, and described at column 5, lines 45-55, when the Cochran packer is to be released, snap ring 25 abuts shoulder 24, after which the packer is released. This is not the attachment mechanism of the cones to the mandrel, but is a means to engage the cones/expander elements of Cochran so as to unseat the packer once it become anchored to the outside casing. Therefore, each and every element of claim 1, and thus dependent claim 2, is not disclosed by Cochran.

With regard to claims 4 and 5 of the present invention, each requires a plurality of bearings, or a wire, respectively, located within the aforementioned slot and groove (although called indents in claims 4 and 5) "to resist axial movement of the cones relative to the liner hanger body." This is not disclosed in Cochran. Assuming for the sake of argument only that the Examiner's citations to Cochran are equivalent to elements of claims 4 and 5, which Applicant contends are not, the cones of Cochran are allowed to move axially relative to the hangar body, which is not allowed by the present claims. As shown in figures 1 and 2 in Cochran, and described at column 5, lines 45-55, when the Cochran packer is to be released, body 10 slides upwardly relative to the cone until snap ring 25 abuts shoulder 24, after which the packer is released. Therefore, to release the Cochran packer, there is necessarily relative axial movement between the hanger body and cone elements of Cochran cited by the examiner. Therefore, Cochran does not anticipate either of claims 4 or 5 of the present invention, as those claims require that axial movement between these elements be resisted.

Given the above, viewed in light of the accompanying declaration, Applicant respectfully request that the Examiner withdraw the 35 U.S.C. § 102(b) rejection of claims 1, 2, 4 and 5, and indicate their allowance in the next paper from the office.

Claim Rejections under 35 U.S.C. § 103

The Examiner has rejected claim 3 under 35 U.S.C. § 102(b) as being anticipated by Cochran in view of Shallenberger et al., U.S. Patent No. 4,855,100. In view of the above arguments in support of the patentability of independent claim 1, Applicant respectfully submits that because the rejection of independent claim 1 has been overcome, so has the instant rejection of claim 3. Therefore, Applicant respectfully requests that the Examiner withdraw the 35 U.S.C. § 103 rejection of claim 3 and indicate its allowance in the next paper from the office.

Claim 1 of the instant application is directed toward a liner

Applicant requests for any extension of time that may be deemed necessary to further the prosecution of this application.

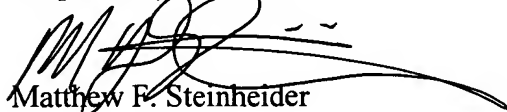
Serial No.: 10/041,974
Confirmation No.: 3679
Applicant: Marzin
Atty. Ref.: 13137.0031.NPUS00

Applicant's representative authorizes the Commissioner to charge any additional fees which may be required, or credit any overpayment, to Deposit Account No. 01-2508, referencing Order No. 13137.0031.NPUS00.

In order to facilitate the resolution of any issues or questions presented by this paper, Applicant respectfully requests that the Examiner directly contact the undersigned by phone to further the discussion.

In order to promote the prosecution of this application, the Examiner is authorized to contact the undersigned by electronic mail. Please address all e-mail to:
houstondocketing@howrey.com.

Respectfully submitted,



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